

Remarks

Applicant respectfully requests that the amendments presented above be entered after final rejection and that the application be reconsidered because the amendments above place the application in condition for allowance.

Upon entry of the foregoing amendment, claims 1, 5-7, 10-12, 15-23, 26-28, 31, 33, 35-39, and 42-58 are pending in the application, with claims 1, 17, 33, and 51 being the independent claims. Claims 2-4, 8, 9, 13, 14, 24, 25, 29, 30, 32, 34, 40, and 41 are cancelled without prejudice to or disclaimer of the subject matter therein. New claim 58 has been added. The amendments presented above are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102

Claims 1-6, 11, 17-22, 27, 33, 35-38, and 43-49 were rejected under 35 U.S.C. § 102(b) as being anticipated by WO 99/46108. Applicant respectfully traverses the rejection.

Independent claim 1 has been amended above to recite that the head portion of the valve pin includes a front surface facing the core and two side surfaces, and that the core includes a core sleeve for engaging the side surfaces of the head portion of the valve pin. This arrangement is shown, for example, in FIG. 2 of the present application, wherein core sleeve (22) extends to engage the side surfaces of head (2) of valve pin (1). WO 99/46108 does not disclose such a core sleeve. The Examiner relied on element 21

of WO 99/46108 as a core sleeve. As can be seen in FIGs. 4-6 of WO 99/46108, element 21 does not engage the side surfaces of element 18. Instead, element 21 engages the bottom surface of element 18. Claims 2-4 have been cancelled. Claims 5, 6, and 11 depend from and add limitations to independent claim 1 and are therefore allowable over WO 99/46108 for at least the same reasons as claim 1.

Independent claim 17 has been amended to recite the separable nozzle tip as previously recited in claim 32. The Examiner rejected claim 32 over WO 99/46108 in view of Bauer. The Examiner has acknowledged that WO 99/46108 does not disclose a separable nozzle tip. With respect to the Examiner's reliance on Bauer, the Examiner's motivation for combining the references does not apply to the proposed combination. In particular, the Examiner states that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a removable seal on the nozzle of WO 99/46108 in order to guide the valve as suggested by Bauer." Paper No. 10, p. 3. Indeed, Bauer discloses that "outer piece 78 extends into a matching cylindrical seat 80 around the gate 16 to maintain accurate alignment." Bauer, col. 3, lines 12-14. However, as can be seen in FIG. 2 of Bauer, gate 16 is formed as part of the mold 20. Independent claim 17, on the other hand, recites that the gate is located in the nozzle tip. Similarly, WO 99/46108 forms the gate within the nozzle. Therefore, the stated motivation to combine Bauer with WO 99/46108, does not apply. Accordingly, independent claim 17 is allowable over the combination of WO 99/46108 and Bauer. Claims 18-22, and 27 depend from and add limitations to claim 17 and are therefore allowable for at least the same reasons as claim 17.

Independent claim 33 recites that an actuator is operatively linked to the stem portion of the valve pin to move the valve pin between an open position with its head portion adjacent the gate, and a closed position with its head portion blocking the gate to seal the communication between the nozzle and the mold cavity. WO 99/46108 does not disclose such an arrangement. As explained at page 11, lines 26-30 of WO 99/46108, pressure cylinder 21 acts on valve body 18 to close the gate. This is not an actuator acting on the valve stem, as valve body 18 is equivalent to the head portion of the valve, not the stem. Accordingly, WO 99/46108 does not disclose each and every element of independent claim 33, and therefore does not anticipate claim 33. Claims 35-38 and 43-49 depend from and add limitations to independent claim 33 and are therefore allowable for at least the same reasons as claim 33.

For the reasons stated above, Applicant respectfully requests that the rejections be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 7-10, 12-15, 23-26, 28-31, and 39-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/46108. These claims recite different shapes of the gate. Claims 8, 9, 13, 14, 24, 25, 29, 30, 40, and 41 have been cancelled, thereby rendering their rejection moot. However, as noted above, claim 1, from which claims 7, 10, 12, and 15 depend, has been amended to recite features not disclosed or suggested by WO 99/46108. Similarly, claims 23, 26, 28, and 31 depend from claim 17, which is allowable over WO 99/46108 for the reasons discussed above. Further, claims 39 and 42 depend from independent claim 33, and are allowable over WO 99/46108 for the reasons discussed above.

Claims 16, 32, and 50 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/46108 in view of Bauer. Claim 16 depends from claim 1. As noted WO 99/46108 does not disclose or suggest the core sleeve recited in claim 1. Bauer also fails to disclose or suggest such a core sleeve. Claim 32 has been cancelled and its features have been incorporated into independent claim 17. As noted above, the Examiner's motivation to combine WO 99/46108 and Bauer is lacking. Claim 50 depends from independent claim 33, which is allowable over WO 99/46108 as discussed above. The Examiner relied on Bauer only for the proposition of a separable nozzle tip. As noted with respect to claim 17, the motivation to combine WO 99/46108 and Bauer for such a feature is lacking. Further, the Examiner has not shown how WO 99/46108 or Bauer disclose or suggest the actuator operatively linked to the valve stem, as noted with respect to independent claim 33.

Claims 51-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/46108 in view of Gellert. The Examiner relies on Gellert as disclosing multiple nozzles associated with a plurality of cavities. However, similar to independent claim 33 described above, independent claim 51 recites actuating means operatively linked to the stem portion of each valve pin to move each valve pin between an open position with its head portion adjacent the gate and a closed position with its head portion blocking the gate to seal the communication between the nozzle and the mold cavity. As noted above with respect to claim 33, WO 99/46108 utilizes pressure cylinder 21 acting on valve body 18 to close the gate, not an actuating means operatively connected to the valve stem. The Examiner has not provide any motivation to modify the actuating means disclosed in WO 99/46108, nor how WO 99/46108 discloses the recited actuating means.

Claims 52-55 depend from and add limitations to claim 51 and are allowable for at least the same reasons.

Claims 56 and 57 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/46108 in view of Gellert and further in view of Bauer. The combination of Bauer and WO 99/46108 has already been addressed. Further, as noted with respect to claim 51, from which claims 56 and 57 depend, the combination of WO 99/46108 and Gellert does not disclose all of the elements of independent claim 51.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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